REDACTED VERSION

Oil Sample Analysis Report

U. S. EPA Region VI
Case Number E16620

Marine Safety Laboratory
Case Number 16-144

9828367

U.S. Department of
Homeland Security

**United States
Coast Guard**

Manager
U.S. Coast Guard
Marine Safety Laboratory

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16450
07 Sep 2016

U. S. Environmental Protection Agency
Attn: On-Scene Coordinator
1445 Ross Avenue, Fountain Place 12th Floor, Suite 1200
Mail Code: 6SF-PR
Dallas, TX 752022733

Dear On-Scene Coordinator:

The laboratory analysis of this case has been completed and our report is forwarded. The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request. We will maintain the oil samples in refrigerated storage pending final case disposition.

Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis.

K. JUAIRE

Encl: (1) MSL Report 16-144

United States Coast Guard
Marine Safety Laboratory
Oil Sample Analysis Report
16-144

Requestor: U. S. EPA Region VI
Unit Case/Activity Number: E16620
Received: 23-Aug-16 **Via:** Federal Express 7770 5285 1283

Number Of Samples: 27
Lab ID for Spills: 10 through 27
Lab ID for Sources: 1 through 9
Lab ID for Background: n/a

Analysis Methods:

- [x] GAS CHROMATOGRAPHY (GC)
- [x] GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)
- [ ] INFRARED SPECTROSCOPY (IR)

Laboratory's Conclusion (as explained below): NON-MATCH

SPECIAL INSTRUCTIONS: Use one sample from each batch of replicates for analysis. Sample 16-144-27 is for ID only.

RESULTS:

1. Samples 16-144-10, 13, 15, 18, 21, 24, and 27 were specified to be representative of spilled oil. Analysis indicates:
   A. Samples 16-144-10, 18, 21, and 24 are somewhat similar to each other and contain primarily lubricating oil. Fuel oil hydrocarbons and non-petroleum contamination are present in all four samples. While important similarities suggest samples 16-144-10, 18, 21, and 24 are related to each other through a common source of petroleum oil, not all differences are attributable to weathering or non-petroleum contamination.
   B. Sample 16-144-13 contains lubricating oil. The quantity is not sufficient for comparison purposes based on the analysis conducted.
   C. Samples 16-144-15 and 27 do not contain a quantity of petroleum oil detectable by the analysis conducted.

2. Suspected source sample 16-144-4 contains primarily lubricating oil with characteristics somewhat similar to those of spill samples 16-144-10, 18, 21, and 24. While important similarities suggest these samples are related to each other through a common source of petroleum oil, not all differences noted are attributable to weathering or non-petroleum contamination.

3. Suspected source sample 16-144-1 contains primarily lubricating oil with characteristics different from those of spill samples 16-144-10, 18, 21, and 24. Differences are not attributable to weathering or non-petroleum contamination.

4. Suspected source sample 16-144-7 does not contain a quantity of petroleum oil detectable by the analysis conducted.

SUPERVISOR OF ANALYSIS K. JUAIRE **DATE** 07-Sep-16

United States Coast Guard
Marine Safety Laboratory
Oil Sample Analysis Report
Continuation
16-144

CONCLUSIONS:

1. While important similarities suggest samples 16-144-4, 10, 18, 21, and 24 are related to each other through a common source of lubricating oil, not all differences noted are attributable to weathering or non-petroleum contamination.

2. Suspected source sample 16-144-1 and spill samples 16-144-10, 18, 21, and 24 are not derived from a common source of petroleum oil.

3. Samples 16-144-13 and 14 contain lubricating oil. The quantity is not sufficient for correlation analysis.

4. Samples 16-144-7, 15, and 27 do not contain a quantity of petroleum oil detectable by the analysis conducted.

SUPERVISOR OF ANALYSIS K. JUAIRE _____ **DATE** 07-Sep-16

United States Coast Guard
Marine Safety Laboratory

Oil Spill Identification Analysis
Cost Recovery Documentation

Laboratory Case Number:	16-144
Requestor:	U. S. EPA Region VI
Unit Case Number:	E16620
Number of Samples:	29
Cost Per Sample Prepared:	$20.00
Total Costs of Sample Preparation:	$580.00
Number of Analyses:	39
Cost Per Sample Analyzed:	$86.00
Total Costs for Analysis:	$3,354.00
TOTAL COSTS:	$3,934.00

This documentation is provided for purposes of Phase IV - Documentation and Cost Recovery under the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300)

Signature:  **Date:** 07 Sep 2016

United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log

MSL Case/Activity Number: 16-144

Requestor: U. S. EPA Region VI **Unit Case Number:** E16620

Federal Project Number: E16620 **Delivery Method:** Federal Express

Received Date: 23 Aug 16 **Delivery Number:** 7770 5285 1283

Priority: Yes **Rush:** No **Comparison:** No

Lab ID 16-144	Sample Descriptions from Sample Jars	Spill	Source
1	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
2	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
3	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
4	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
5	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
6	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
7	914F-03-08192016 LARD OIL PROPERTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
8	914F-03-08192016 LARD OIL PROPERTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
9	914F-03-08192016 LARD OIL PROPERTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
10	(b) (6)-01-08192016 PROPERTY (b) (6) WHITE EMULSION 8/19/16 1109	☑	☐

Remarks: Sample 27 is ID only. Sample numbers for samples 1-9 taken from the Chain of Custody.

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29 AUG 16

Supervisor of Analysis: K. JUAIRE **Date:** 01 ~~07~~ Sep 16

United States Coast Guard
Marine Safety Laboratory
Check-In Log

MSL Case Number: 16-144

Lab Number 16-144	Sample Descriptions from Sample Jars	Spill	Source
11	(b) (6)-01-08192016 PROPERTY (b) (6)- WHITE EMULSION 8/19/16 1109	☑	☐
12	(b) (6)-01-08192016 PROPERTY (b) (6)- WHITE EMULSION 8/19/16 1109	☑	☐
13	(b) (6)-02-08192016 PROPERTY (b) (6)- DARK EMULSION 8/19/16 1130	☑	☐
14	(b) (6)-02-08192016 PROPERTY (b) (6)- DARK EMULSION 8/19/16 1130	☑	☐
15	(b) (6)-03-08192016 PROPERTY (b) (6)- OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
16	(b) (6)-03-08192016 PROPERTY (b) (6)- OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
17	(b) (6)-03-08192016 PROPERTY (b) (6)- OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
18	(b) (6)-04-08192016 PROPERTY (b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐
19	(b) (6)-04-08192016 PROPERTY (b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐
20	(b) (6)-04-08192016 PROPERTY (b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29 AUG 16

Supervisor of Analysis: K. JUAIRE **Date:** 01 Sep 16

United States Coast Guard
Marine Safety Laboratory
Check-In Log

MSL Case Number: 16-144

Lab Number 16-144	Sample Descriptions from Sample Jars	Spill	Source
21	206L-05-08192016 PROPERTY 206L- OILED VEGITATION 8/19/16 1207	☑	☐
22	206L-05-08192016 PROPERTY 206L- OIL VEGITATION 8/19/16 1207	☑	☐
23	206L-05-08192016 PROPERTY 206L- OILED VEGITATION 8/19/16 1207	☑	☐
24	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
25	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
26	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
27	(b) (6)-07-08222016 PROPERTY (b) (6)- BATHTUB + FLOOR MATERIAL 8/22/16 1155	☑	☐
28		☐	☐
29		☐	☐
30		☐	☐

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29AUG16

Supervisor of Analysis: K. JUAIRE **Date:** 01 Sep 16